

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

C. Amendments to the Claims.

1. (Currently Amended) A semiconductor device structure on a silicon substrate, comprising:

a contact which penetrates an interlayer insulating film and is in physical
contact connected with a diffusion layer in the silicon substrate;

a gate electrode which is formed on the silicon substrate and contains a
nitride film at upper and side portions;

an insulating film formed from a gas containing carbon; and

a silicon nitride film for preventing carbon diffusion, having a portion
sandwiched between the interlayer insulating film and the silicon substrate and
adjacent to the gate electrode in a direction essentially parallel to a substrate
surface, such a sandwiched portion having a thickness in a direction perpendicular
to the substrate surface that is less than a thickness of the gate electrode in the
perpendicular direction, the silicon nitride film traversing a region except a
portion for providing the ~~electrical~~ connection between the contact and the
diffusion layer, and is formed on the nitride film at the upper and side portions of
the gate electrode wherein the silicon nitride film for preventing carbon diffusion
includes a portion having a bottom surface in contact with and extending parallel
to the diffusion layer away from the gate electrode and a top surface in contact
with the interlayer insulating film.

2. (Previously Presented) The semiconductor device according to claim 1, wherein:

the insulating film includes tantalum oxide (Ta_2O_5); and

the semiconductor device is a dynamic random access memory having a
memory cell capacitor film including the tantalum oxide.

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)